

L Number	Hits	Search Text	DB	Time stamp
2	41	prions.ab. and bead?	USPAT; US-PGPUB; EPO	2004/01/28 16:31
1	41	prion.ab. and bead?	USPAT; US-PGPUB; EPO	2004/01/28 16:31

09/899407

File 5:Biosis Previews(R) 1969-2004/Jan W4
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Set	Items	Description
S1	1230	MAGNETIC() BEAD?
S2	2	PRION AND S1
S3	1	SCRAPIE AND S1
S4	1405	BLOOD AND (AMMONIUM()) SULFATE)
S5	316	4 AND PRION
S6	321	AU='AGUZZI A' OR AU='AGUZZI ADRIANO'
S7	0	S4 AND PRION
S8	112	S6 AND PRION
S9	1	S6 AND BEADS

? t s2/7/1-2

2/7/1

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0013558297 BIOSIS NO.: 200200151808

Selective binding of disease-associated ~~***prion***~~ protein to plasminogen and other proteins occurs only in the presence of detergents

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JOURNAL: Blood 98 (11 Part 2): p112b November 16, 2001 2001

MEDIUM: print

CONFERENCE/MEETING: 43rd Annual Meeting of the American Society of

Hematology, Part 2 Orlando, Florida, USA December 07-11, 2001; 20011207

SPONSOR: American Society of Hematology

ISSN: 0006-4971

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: ~~***Prion***~~ diseases are transmissible, neurodegenerative diseases caused by an infectious protein termed PrPSc. PrPSc is hydrophobic and insoluble in non-denaturing detergents. A recent report on the binding of PrPSc to plasma proteins on ~~***magnetic*** ***beads***~~ in the presence of detergents (Fischer et al., 2000; Nature) has led to the perception that certain plasma proteins, especially plasminogen, might be capable of binding selectively to prions also under physiological conditions. Here we show that prions do not co-fractionate with plasminogen during production of plasma proteins. Spiking studies using ~~***prion***~~ preparations of increasing purity clearly demonstrate that prions partition with fraction I of Cohn fractionation whereas plasminogen predominantly precipitates in fraction II+III. We further demonstrate that selective binding only occurs in the presence of high concentrations of detergents, which do not exist in manufacturing processes. In the absence of detergent, we found ~~***prion***~~-containing brain homogenates to be attached to many other proteins conjugated to ~~***magnetic*** ***beads***~~. In addition to plasma proteins, certain non-plasma proteins show very similar binding characteristics compared to plasminogen. The data clearly demonstrate that selective binding of proteins to prions is facilitated by high concentrations of detergent.

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0013188094 BIOSIS NO.: 200100359933

Plasminogen binds to disease-associated ~~***prion***~~ protein of multiple species

AUTHOR: Maissen Manuela; Roeckl Christiane; Glatzel Markus; Goldmann Wilfred; Aguzzi Adriano (Reprint)

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JOURNAL: Lancet (North American Edition) 357 (9273): p2026-2028 23 June,
2001 2001
MEDIUM: print
ISSN: 0099-5355
DOCUMENT TYPE: Letter
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The protein-only hypothesis states that the causative agent of transmissible spongiform encephalopathies is PrPSc, a conformer of the cellular protein PrPC. Therefore, reagents differentiating between PrPC and PrPSc could be diagnostically useful. Plasminogen, when immobilised onto ~~***magnetic***~~ ~~***beads***~~, selectively precipitates PrPSc from mice with ~~***prion***~~ infected brains. We have shown that human plasminogen also precipitates PrPSc from brain homogenate of patients with sporadic Creutzfeldt-Jakob disease, as well as from sheep with scrapie and cows of various breeds with bovine spongiform encephalopathy (BSE). Our findings suggest that the binding of plasminogen to PrPSc could have diagnostic application.

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0013188094 BIOSIS NO.: 200100359933
Plasminogen binds to disease-associated prion protein of multiple species
AUTHOR: Maissen Manuela; Roeckl Christiane; Glatzel Markus; Goldmann Wilfred; Aguzzi Adriano (Reprint)
AUTHOR ADDRESS: Institute of Neuropathology, University Hospital Zurich, Schmelzbergstrasse 12, CH-8091, Zurich, Switzerland**Switzerland
JOURNAL: Lancet (North American Edition) 357 (9273): p2026-2028 23 June, 2001 2001
MEDIUM: print
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0014680336 BIOSIS NO.: 200400047866
A novel tool for detecting amyloid deposits in systemic amyloidosis in vitro and in vivo.
AUTHOR: Ando Yukio (Reprint); Haraoka Katsuki; Terazaki Hisayasu; Tanoue Yutaka; Ishikawa Kensuke; Katsuragi Shoichi; Nakamura Masaaki; Sun Xuguo; Nakagawa Kazuko; Sasamoto Kazumi; Takesako Kazuhiro; Ishizaki Takashi; Sasaki Yuyaka; Doh-ura Katsumi
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JOURNAL: Laboratory Investigation 83 (12): p1751-1759 December 2003 2003
MEDIUM: print

ISSN: 0023-6837
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We synthesized (trans,trans)-1-bromo-2,5-bis-(3-hydroxycarbonyl-~~4~~-hydroxy)styrylbenzene (BSB) and used this compound to detect amyloid fibrils in autopsy and biopsy samples from patients with localized amyloidosis, such as familial ~~prion~~ disease, and systemic amyloidosis, such as familial amyloidotic polyneuropathy, amyloid A (AA) amyloidosis, light chain (AL) amyloidosis, and dialysis-related amyloidosis. BSB showed reactions in all Congo red-positive and immunoreactive regions of the samples examined in the study, and some amyloid fibrils in the tissues could be detected more precisely with BSB than with the other methods. In the mouse model of AA amyloidosis, injected BSB reacted with amyloid in all regions in the serial sections in which Congo red staining was positive. A highly sensitive 27-MHz quartz crystal microbalance analysis revealed that BSB showed a significant affinity for amyloid fibrils purified from familial amyloidotic polyneuropathy and dialysis-related amyloidosis samples and suppressed formation of transthyretin amyloid in vitro. These results suggest that BSB may become a valuable tool for detection of amyloid deposits in amyloidosis and of the mechanism of amyloid formation.

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0014674198 BIOSIS NO.: 200400044955

The octapeptide repeats in mammalian ~~prion~~ protein constitute a pH-dependent folding and aggregation site.

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JOURNAL: Journal of Molecular Biology 334 (3) p477-488 28 November, 2003
2003

MEDIUM: print

ISSN: 0022-2836 (ISSN print)

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Structural studies of mammalian ~~prion~~ protein at pH values between ~~4~~5 and 5.5 established that the N-terminal 100 residue domain is flexibly disordered. Here, we show that at pH values between 6.5 and 7.8, i.e. the pH at the cell membrane, the octapeptide repeats in recombinant human ~~prion~~ protein hPrP(23-230) encompassing the highly conserved amino acid sequence PHGGGWGQ are structured. The nuclear magnetic resonance solution structure of the octapeptide repeats at pH 6.2 reveals a new structural motif that causes a reversible pH-dependent PrP oligomerization. Within the aggregation motif the segments HGGGW and GWGQ adopt a loop conformation and a beta-turn-like structure, respectively. Comparison with the crystal structure of HGGGW-Cu²⁺ indicates that the binding of copper ions induces a conformational transition that presumably modulates PrP aggregation. The knowledge that the cellular ~~prion~~ protein is immobilized on the cell surface along with our results suggests a functional role of aggregation in endocytosis or homophilic cell adhesion.

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0014669463 BIOSIS NO.: 200400040220

Cleaned Reusable Laryngoscope Blades Contain Protein Deposits.

AUTHOR: Mathur Parag N (Reprint); Trudell James R (Reprint); Chu Lawrence F (Reprint); Brock-Utne John G (Reprint)

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JOURNAL: Anesthesiology Abstracts of Scientific Papers Annual Meeting (2003
): pAbstract No. A-1232 2003 2003
MEDIUM: cd-rom
CONFERENCE/MEETING: 2003 Annual Meeting of the American Society of
Anesthesiologists San Francisco, CA, USA October 11-15, 2003; 20031011
SPONSOR: American Society of Anesthesiologists
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Introduction: Previous studies have demonstrated blood and microbial contamination on cleaned reusable anesthesia equipment (1-3). The demonstration of ~~prion~~ proteins in human tonsillar tissue has raised the question of transmission of variant Creutzfeldt-Jakob (vCJD) disease from anesthetic equipment exposure. Many institutions in the U.K, where ~~prion~~-based disease is of greatest concern, have already switched from reusable laryngoscopes to disposable devices. Now that there have been reported cases of CJD in North America (possibly vCJD), we have decided to investigate the cleanliness of reusable laryngoscope blades. A recent study by these authors has already demonstrated protein contamination on cleaned reusable LMAs at an American university hospital. Methods: 30 previously used, cleaned laryngoscope blades were collected from the operating rooms of an American university hospital. Six used, unclean blades were collected as positive controls, and two new, unused blades were used as negative controls. All 38 blades were stained for 20 minutes at room temperature using erythrosin B dye (1% solution.) The blades were rinsed with water and evaluated by three investigators in a blinded manner. The level of staining was graded from 0 (no noted staining) to 3 (very heavy staining) using strict criteria. The final scores for each blade was the arithmetic mean of the individual scores. Results and Discussion: We found some degree of protein staining on almost every previously used, cleaned blade. In general, staining was noted in the crevices around the replaceable light bulb, and at the junction of the blade with the handle. The mean score for cleaned reusable blades was 1.11 (95% confidence interval 0.86 to 1.37) while unclean blades scored 1.90 (95% CI 1.15 to 2.65) and the new blades were clean (both scored zero.) While it is important to note that the cleaned blades were statistically indistinguishable from the blades just removed from the patients' oropharynx, it is also important to note that ~~4%~~ of the cleaned blades (13%) had a score of 2 or greater. This indicates at least a moderate amount of staining on a significant portion of the blades which we place in patients mouths every day. Subgroup analysis did not show any difference between blades which were autoclaved in the process of cleaning and those which were cleaned with a purely chemical process. Conclusion: This study demonstrates protein staining on laryngoscope blades that had been cleaned using conventional methods. While the clinical significance of this protein staining is unclear, the presence of these deposits may be of importance. In addition to study of disposable devices, laryngoscopes which contain the light source in the handle as opposed to the difficult to clean blade should be areas of further study..

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0014660345 BIOSIS NO.: 200400031102

The clinical neurology of scrapie in Irish sheep.

AUTHOR: Healy Anne M (Reprint); Weavers Edwin; McElroy Maire; Gomez-Parada Mercedes; Dan Collins J; O'Doherty Elaine; Sweeney Torres; Doherty Michael L

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JOURNAL: Journal of Veterinary Internal Medicine 17 (6): p908-916
November-December 2003 2003

MEDIUM: print

ISSN: 0891-6640

DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: One hundred twenty-nine sheep with scrapie were identified from 20 flocks in which scrapie previously had been confirmed. Physical and neurologic examinations were performed on all animals. Videotape recordings were made and reviewed to assess gait. These procedures were repeated in 46 sheep at 2- to 3-week intervals until recumbency or inappetence necessitated euthanasia. Confirmation of scrapie was made by histopathologic and immunohistochemical examinations of brain tissue. The clinical signs most frequently recorded in the 129 animals on initial presentation were hindlimb ataxia (71%), head tremor (61%), altered mental status (57%), positive nibble reflex (51%), crouching posture (51%), teeth grinding (44%), low head carriage (38%), body condition score (BCS) <1.5 (38%), and conscious proprioceptive deficits of the hindlimbs (36%). Progression of the disease was characterized by an increase in the frequency and severity of ataxia, weakness and hypermetria of the hindlimbs, a decreasing sway response, a decreasing extensor response to thoracolumbar pressure, and a reduction in the BCS. No effect of farm of origin on the clinical presentation could be shown. The presence of a nibble reflex was strongly associated ($P < .0005$) with PrP^{Sc} protein (PrP) genotypes AA136RR154QH171 and AA136RR154QQ171. Logistic regression modeling of groups with associated clinical signs showed that animals with a crouching posture (odds ratio (OR), 20.036) and an abnormal yield to thoracolumbar pressure (OR, 7.117) were at increased risk of ataxia. Pruritus (OR, 0.168) was negatively associated with ataxia. Pruritus (OR, PrP^{Sc} 974) and teeth grinding (OR, PrP^{Sc} 279) were associated with a positive nibble reflex.

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0013188094 BIOSIS NO.: 200100359933

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AUTHOR ADDRESS: Institute of Neuropathology, University Hospital Zurich, Schmelzbergstrasse 12, CH-8091, Zurich, Switzerland**Switzerland

JOURNAL: Lancet (North American Edition) 357 (9273): p2026-2028 23 June, 2001/2001

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